

What is claimed is:

1. An energy-absorbing padding for use in a motor vehicle comprises:  
a first base layer having a first face, a second face, and a plurality of integrally-formed, hollow, first elements projecting from the first face of the first base layer, each first element defining a convex impact surface disposed a first distance from the first face of the first base layer;  
a second base layer having a first face, a second face, and a plurality of integrally-formed, hollow second elements projecting from the first face of the second base layer, each second element defining a convex impact surfaces disposed a second distance from the first face of the second base layer,  
wherein the first base layer is laminated with the second base layer with the second face of the first base layer in opposition with a selected one of the group consisting of the first face of the second base layer and the second face of the second base layer, and the second distance is substantially different from the first distance.
2. The energy-absorbing padding of claim 1, wherein the first elements project from the first face of the first base layer in a first direction, and the second elements project from the first face of the second base layer in a second direction, the first direction being generally opposite the second direction.
3. The energy-absorbing padding of claim 2, wherein the first face of the second base layer is bonded to the second face of the second base layer.
4. The energy-absorbing padding of claim 1, wherein the first elements and second elements project in the same direction, and wherein the second face of the first base layer is placed in opposition with the first face of the second base layer.
5. The energy-absorbing padding of claim 4, wherein the second face of the first base layer is bonded to the first face of the second base layer.

6. The energy-observing padding of claim 5, wherein a peripheral portion of one first element proximate to the first face of the first base layer is affixed to a peripheral portion of one second element proximate to the first face of the second base layer.

7. The energy-absorbing padding of claim 1, wherein the first and second base layers are generally planar, and wherein each first element has a first major axis extending generally normal to the first base layer, and each second element has a second major axis extending generally normal to the second base layer.

8. The energy-absorbing padding of claim 7, wherein the first major axis of one first element is offset a predetermined distance from the second major axis of one second element.

9. The energy-absorbing padding of claim 7, wherein the first major axis of one first element is generally collinear with the second major axis of one second element.

10. The energy-absorbing padding of claim 1, wherein one of the first and second elements has a wall thickness that varies as a function of distance from the first face of the element's respective base layer.

11. The energy-absorbing padding of claim 1, wherein each first element defines in cross-section a portion of a sphere.

12. The energy-absorbing padding of claim 1, wherein each second element defines in cross-section a portion of an arch.